

Amendments to the Claims

Please cancel claims 3, 4, 6-10, 22, 26-31, and 41-51. Please amend claims 1, 2, 11, 12, 14-17, 21, 32, and 34-37 as follows.

1. (Currently Amended) A method for determining an individual's risk for obesity, the method comprising: detecting presence of at least one obesity-related polymorphism in a frizzled-related protein (FRZB) gene, wherein the at least one obesity-related polymorphism is an A allele of a G19524A single nucleotide polymorphism (SNP) of the FRZB gene, in a nucleic acid sample of the individual, wherein the presence of said A allele of G19524A ~~at least one polymorphism~~ provides an indication of the individual's risk for obesity.

2. (Currently Amended) The method of claim 1, wherein the individual's risk for obesity is an increased risk as compared to an individual without the A allele of G19524A ~~at least one polymorphism~~.

3-4. (Cancelled)

4. (Original) The method of claim 1, wherein the nucleic acid sample comprises DNA or RNA.

5-10. (Cancelled)

6. (Currently Amended) The method of claim 1, wherein the A allele of G19524A ~~at least one polymorphism~~ is detected by sequencing.

7. (Currently Amended) The method of claim 1, wherein the A allele of G19524A ~~at least one polymorphism~~ is detected by amplification.

8. (Original) The method of claim 7, wherein the amplification comprises a polymerase chain reaction or a ligase chain reaction.

9. (Currently Amended) The method of claim 1, wherein the detecting comprises:

contacting the nucleic acid sample with at least one sequence-specific oligonucleotide under conditions that allow binding of said at least one oligonucleotide to the nucleic acid sample, wherein the at least one sequence-specific oligonucleotide hybridizes under stringent conditions to a region of the FRZB gene comprising the A allele of G19524A ~~at least one obesity-related polymorphism~~; and,

detecting the hybridization of the at least one oligonucleotide to the nucleic acid sample.

10. (Currently Amended) The method of claim 1, wherein the detecting comprises:
amplifying the nucleic acid sample, thereby providing an amplified nucleic acid sample;
contacting the amplified nucleic acid sample with at least one sequence-specific oligonucleotide under conditions that allow binding of the oligonucleotide to the amplified nucleic acid sample, wherein the at least one sequence-specific oligonucleotide hybridizes under stringent conditions to a region of the FRZB gene comprising the A allele of G19524A ~~at least one obesity related polymorphism~~; and,
detecting the hybridization of the at least one sequence-specific oligonucleotide to the amplified nucleic acid sample.
11. (Currently Amended) The method of claim 1, wherein detecting the presence of the A allele of G19524A ~~at least one obesity related polymorphism~~ comprises qualitatively detecting the presence of the A allele of G19524A ~~at least one obesity related polymorphism~~.
12. (Currently Amended) The method of claim 1, wherein detecting the presence of the A allele of G19524A ~~at least one obesity related polymorphism~~ comprises quantitatively detecting the presence of the A allele of G19524A ~~at least one obesity related polymorphism~~.
13. (Original) The method of claim 1, wherein the presence of the polymorphism inherited from one of the individual's parents provides an indication of the individual's risk for obesity, or wherein the presence of the polymorphism inherited from both of the individual's parents provides an indication of the individual's risk for obesity.
14. (Original) The method of claim 1, comprising performing at least one clinical test for obesity.
15. (Original) The method of claim 14, wherein performing the at least one clinical test for obesity comprises determining a body mass index (BMI) of the individual.
16. (Currently Amended) A method for determining an individual's risk for osteoporosis, the method comprising: detecting presence of the A allele of G19524A ~~at least one osteoporosis related polymorphism~~ in an FRZB gene in a nucleic acid sample of the individual, wherein the presence of said A allele of G19524A ~~at least one osteoporosis related polymorphism~~ provides an indication of the individual's risk for osteoporosis.
17. (Canceled)

18. (Original) The method of claim 16, wherein the individual's risk for osteoporosis is a decreased risk as compared to an individual without the at least one polymorphism.

19. (Original) The method of claim 16, wherein the at least one polymorphism comprises a predisposing or protective polymorphism in the FRZB gene.

20. (Original) The method of claim 16, wherein the nucleic acid sample comprises DNA or RNA.

21 -31. (Canceled)

22. (Currently Amended) The method of claim 16, wherein the A allele of G19524A ~~at least one polymorphism~~ is detected by amplification.

23. (Original) The method of claim 22, wherein the amplification comprises a polymerase chain reaction or a ligase chain reaction.

24. (Currently Amended) The method of claim 16, wherein the detecting comprises:

contacting the nucleic acid sample with at least one sequence-specific oligonucleotide under conditions that allow binding of the oligonucleotide to the nucleic acid sample, wherein the at least one sequence-specific oligonucleotide hybridizes under stringent conditions to a region of the FRZB gene comprising the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~; and,

detecting the hybridization of the at least one sequence-specific oligonucleotide to the nucleic acid sample.

25. (Currently Amended) The method of claim 16, wherein the detecting comprises:

amplifying the nucleic acid sample, thereby providing an amplified nucleic acid sample;
contacting the amplified nucleic acid sample with at least one sequence-specific oligonucleotide under conditions that allow binding of the oligonucleotide to the amplified nucleic acid sample, wherein the at least one sequence-specific oligonucleotide hybridizes under stringent conditions to a region of the FRZB gene comprising the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~; and,

detecting the hybridization of the at least one sequence-specific oligonucleotide to the amplified nucleic acid sample.

26. (Currently Amended) The method of claim 16, wherein detecting the presence of the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~ comprises qualitatively detecting the presence of the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~.

27. (Currently Amended) The method of claim 16, wherein detecting the presence of the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~ comprises quantitatively detecting the presence of the A allele of G19524A ~~at least one osteoporosis-related polymorphism~~.
28. (Original) The method of claim 16, wherein the presence of the polymorphism inherited from one of the individual's parents provides an indication of the individual's risk for osteoporosis, or wherein the presence of the polymorphism inherited from both of the individual's parents provides an indication of the individual's risk for osteoporosis.
29. (Original) The method of claim 16, comprising performing at least one clinical test for osteoporosis.
30. (Original) The method of claim 29, wherein the at least one clinical test for osteoporosis comprises a bone-turnover assay or a bone scan.
- 31-78. (Canceled)